

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims:

1-8. (Canceled)

9. (New) A semiconductor optical device mounting structure, comprising:
a semiconductor laser device and a mounting plate on which a second electrode is formed,
wherein said semiconductor laser device comprises
an active layer,
a clad layer formed over said active layer,
a surface dielectric film formed over said active layer,
a first electrode which is formed over said clad layer and is elongated toward a peripheral region of said semiconductor laser device, and
an electrode protection dielectric film which is formed over said surface dielectric film and said clad layer,
wherein said surface dielectric film is removed at a top surface of an active region of said semiconductor laser device,
wherein said electrode protection dielectric film is selectively removed so that an area above the active region remains coated, and

wherein said semiconductor laser device is mounted on said mounting plate in junction down form by mounting said first electrode of said semiconductor laser device on the second electrode of said mounting plate by using solder metal.

10. (New) A semiconductor optical device mounting structure according to claim 9, wherein said semiconductor laser device is one selected from a group consisting of a ridge type device, a buried type device, and vertical cavity surface emitting type device.

11. (New) A semiconductor optical device mounting structure, comprising:
a ridge type semiconductor laser device and a mounting plate on which a second electrode is formed,
wherein said ridge type semiconductor laser device comprises
an active layer,
a clad layer formed over said active layer,
a surface dielectric film formed over said active layer,
a first electrode of a p-side electrode which is formed over said clad layer and is elongated toward a peripheral region of said ridge type semiconductor laser device, and
an electrode protection dielectric film which is formed over said clad layer,

wherein said surface dielectric film is removed at a top surface of a ridge type waveguide,

wherein said electrode protection dielectric film is selectively removed so that only the area above the ridge type waveguide remains coated, and

wherein said ridge type semiconductor laser device is mounted on said mounting plate in junction down form by mounting said p-side electrode of said ridge type semiconductor laser device on the second electrode of said mounting plate by using solder metal.

12. (New) A mounting method of a semiconductor optical device mounting structure, comprising:

preparing a semiconductor laser device and a mounting plate on which a second electrode is formed, wherein

said semiconductor laser device comprises:

an active layer,

a clad layer formed over said active layer,

a surface dielectric film over said active layer,

a first electrode which is formed over said clad layer and is elongated toward peripheral region of said semiconductor laser device, and

an electrode protection dielectric film which is formed over said surface dielectric film and said clad layer;

wherein

said surface dielectric film is removed at a top surface of an active region of said semiconductor laser device,

said electrode protection dielectric film is selectively removed so that the area above the active region remains coated, and

mounting said semiconductor laser device on said mounting plate in junction down form by mounting said first electrode of said semiconductor laser device on the second electrode of said mounting plate by using solder metal.

13. (New) Mounting method of a semiconductor optical device, comprising:
preparing a ridge type semiconductor laser device and a mounting plate on which a second electrode is formed; said ridge type semiconductor laser device comprising;

an active layer,

a clad layer formed over said active layer,

a surface dielectric film formed over said active layer,

a first electrode of a p-side electrode which is formed over said clad layer and is elongated toward peripheral region of said ridge type semiconductor laser device,
and

an electrode protection dielectric film which is formed over said clad layer,

wherein

said surface dielectric film is removed at a top surface of a ridge type waveguide, and

said electrode protection dielectric film is selectively removed so that only the area above the ridge waveguide remains coated, and

mounting said ridge type semiconductor laser device on said mounting plate in junction down form by mounting said p-side electrode of said ridge type semiconductor laser device on the second electrode of said mounting plate by using solder metal.